

DETAILED ACTION

Response to Arguments

1. Applicant's arguments, have been fully considered again by the examiner and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of Boulanger et al. (US 2003/0067536 A1).

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1-9,20-28 are rejected under 35 U.S.C. 102(e) as being anticipated by Boulanger et al. (US 2003/0067536 A1).

Re claim 1, Bopulanger et al. disclose of a system for audio reproduction comprising: means for obtaining one or more audio signals that are representative of sounds occurring at a first location ("fig.1-2 wt (218-220); par[0026]"); means for communicating the audio signals from the first location to a second location of a person and means for determining a position of the head of the person in at least

Art Unit: 2615

two dimensions at the second location by imaging the person and plural means for reproducing an audio field at the second location from the audio signals sounds emitted by each means for reproducing are controlled based on the position of the head of the person (fig.2; par[0041,0050,0035,0029,0027]sound from first location is adjusted based on position of head/including face at second location).

Re claim 2, the system according to claim 1, wherein the audio field is reproduced in real time ("page 3[0011]/conferencing with sound/video in real-time").

Re claim 3, the system according to claim 1, wherein said means for determining repeatedly determines the position of the person and wherein said means for reproducing is continuously controlled in response to changes in the position of the head of the person ("par [0031,0035,0041])").

Re claim 4, the system according to claim 1, wherein the position of the head of the person is determined in horizontal directions and wherein volume for reproduction by each means for reproducing is controlled based on the horizontal distance between the head of the person and the means for reproducing (par [0041, fig.1]/each channel is volume adjusted relative/distance to the head positioning in three D incorporate horizontally).

Re claim 5, the system according to claim 4, wherein each of the plural means for reproducing comprises a speaker ("fig.2/plural speakers").

Re claim 6, the system according to claim 4, further teach of the wherein each of the plural means for reproducing comprises at least a pair of vertically arranged speakers ("fig.2 wt (218,220)/speaker upper left and right").

Re claim 7, the system according to claim 1, wherein the position of the person is determined in three dimensions, including horizontal and vertical directions ("par[0027-0028]/camera to capture three-D dimension of object").

Re claim 8 has been analyzed and rejected with respect to claim 6.

Re claim 9, the system according to claim 8, However, Boulanger is silent in regard to the specific wherein the volume of reproduction by each of a pair of vertically arranged speakers is based on the position of the head of the person in the vertical direction. But, Boulanger did disclose of determining the Three dimensions of the head (including vertically/horizontally) directions and adjusting the volume based on such position and the each one of the channels audio field (fig.2; par [0041]), thus with the above disclosure it is inherent of the specific existence of such volume of reproduction by each of a pair of vertically arranged speakers is based on the position of the head of the person in the vertical direction.

Re claim 20, the system according to claim 1, further comprising means for displaying visual images to the user including a source of the sounds("fig.2 , par [0014]/means to display imagery to participatns").

Re claims 21 has been analyzed and rejected with respect to claim 1.

Re claim 22, the method according to claim 21, wherein volume of reproduction is controlled based on the position of the head of the person ("fig. 2-4; par [0041]").

Re claim 23, the method according to the claim 21, However, the combined Boulanger, is silent to the specific wherein the delay associated with volume of reproduction by each means for reproducing is controlled based on the positions of the head of the person. But, Boulanger did disclose of the specific wherein determining the image positioning of the head and accordingly adjusting the amplitude and phase of the audio field based on such position (fig.2-3; par [0041]), thus with the above disclosure it is inherent of the existence of such delay associated with volume of reproduction by each means for reproducing is controlled based on the positions of the head of the person.

Re claim 24, the method according to claim 21, wherein the audio field is controlled based on the position of the person's head in three dimensions ("fig.3-4; par [0035-6,0025,0015,0041]").

Re claim 25, Bloulanger disclose of a telepresence system comprising: a display booth having a plurality of cameras for

obtaining images of a person within the display booth; a computer system for determining a position of the head of the person in at least two dimensions from the images of the person and a plurality of speakers for reproducing an audio field at the display booth, wherein the audio field is controlled based on the position of the head of the person (fig.1-2; see claim 1 rejection).

Re claims 26-28 have been analyzed and rejected with respect to claim 22-24 respectively.

Allowable Subject Matter

5. Claims 10-19 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Disler Paul whose telephone number is 571-270-1187. The examiner can normally be reached on 7:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chin Vivian can be reached on 571-272-7848. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/D. P./
Examiner, Art Unit 2615

/Vivian Chin/
Supervisory Patent Examiner, Art Unit 2615